MCQS

- One is not found (involve) in colorimetric:1- Cuvett2-light source3- Photo sensor and analyzer4- **fule source**5-Filter2.
- The atomic mass of an atom is the number of:1- **Protons and neutrons2**- Protons only3- Neutrons only4- Electrons5- Non of the above3.
- Deionization of impure water means:1- Boiling2- Filtration3- **Exchange of protons and electrons4.**
- If you see this sign (symbol) in the lab it means:1- Flammable2- **Corrosive3**- Oxidizing4- Explosive5- Toxic5.
- Most common method (technique) used to detect hormone amount in the laboratories:1- Spectrophotometry2- **Enzyme Linked Immuno Surbant Assay (ELIZA)6.**
- Test should be kept away from light:1- **Serum bilirubin7**.
- Buffer solution is:1- Chaing color when chaing pH2- Resist acidic pH3- Resist alkaline pH4- **Weak acid + weak base**5- Strong acid + weak base8.
- An indicator is:1- **Change color with change pH** 2- Resist acidic pH 3- Resist alkaline pH 4- Weak acid + weak base 5- Strong acid + weak base9.
- Heparin is:1- **Protein** 2- Enzyme 3- Polysaccharide 4- Oligosaccharide
- Not find in the flam photometry :BurnerFilterFuel source, **Cuvete for sample,**Photo11.
- Low effective sterilization with: **Ethyl alcohol 70%**,Methyl alcoholChloroform5%,phenol5% cresol12.
- Prolonged fast cause: Hyperglycemia,**Keton in urine13**.
- Lens near the slid in light microscope : **Objective**, Eye lenses14.
- Does not sterile with hot air oven: Dry glassware,Oil,Powder,Waxes,**Rubber gloves**15.
- Autoclave sterilize in temp: **121 c-20-30min16**.
- Alkali skin burn treatment by neutralization with: Sodium bicarbonate powder,Boric acid,**Acetic acid 1%**,Cold water,Hot water17.
- You do not take this stage for treatment small cut In emergency :Clean with soap and water,Do pressure with piece,**Immediately rinse mouth well and water**,Cover it with water dressing, Sterilize18.
- the (u) unit used to evaluation of : Protein in serum,Hemoglobin, Hormone assay, **Enzymatic activity19.**
- During reaction of two chemical substances , the color produced asses by: **Spectrophotometer**,Flame photometer

- To detect pH from solution use : pH meter, Indicator, Micrometer21.
- This Symbol means, when you see in laboratory : acute flammable, **Toxic**, Corrosive, Explosive22.
- The microscope which used in investigate syphilis is?*light microscope*ultra-violet microscope***dark field microscope**
- How much water should we add to 500ml of a solution of 10% of NAOH to bring it to 7.5%?*666*250*16624.
- Calibrator sera are?*secondary standards*internal standards***primary standards25**.
- A buffer made of?*a strong acid + a strong salt*a weak acid + a weak salt***a weak acid + a strong salt26.**
- The difference between plasma & serum is that plasma?*does not contain fibrinogen*has more water***contains fibrinogen (Plasma)**27.
- Five ml of colored solution has an absorbance of .500nm the absorbance of 10ml of the same solution is?*1.000nm*0.250nm***0.500nm28**.
- Plasma or serum should be separated at the earliest time for estimation of glucose because?*glucose value increases with time*lyses of blood will occur***glucose value decreases with time29.**
- Wave Length Visible To Naked Eye**:400-700 nm.**
- Purpose of standard deviation :A-to measure external quality control B-to measure internal quality control C-precise & accuracy D-**both a & b**
- 31. Substance used in catalyse reaction : **H_2O_2**

haematology

- Neutrophil count is high in:1-**Acute bacterial infection 2**- Iron deficiency anemia3-Megaloblastic anemia2.
- HbA2 is consisting of:1-3 ά chains and 2 γ chains,2 ά chains and 2 β chains, **2 ά chains and 2 δ chains,** 2 ά chains and 3 δ chains, 3 ά chains and 2 δ chains
- The main (most) Hb found in adult is: **HbA,** HbA2,Hb F4.
- Detection of malaria parasite is by:1- **Thick blood film5.**
- Leukocyte that involve in Adaptive and Acquired immunity:1- **Lymphocyte**2- Neutrophil3- Monocyte4- Basophile5- Eosinophil6.
- Normal range of leukocyte is:**1- 4-11 X 10^97.**
- Reticulocyte is immature:1- **RBC2**- WBC3- Platelet8.
- Leukocyte responsible for cellular immunity:1- **T-lymphocyte2**- B- lymphocyte3- Monocyte4- Basophile5- Eosinophil9.
- Malaria infection transmitted by:1- Male anopheles mosquito2- **Female anopheles mosquito10.**

primary stage -> activa X Factor

- One stage prothrombin time used to detect (diagnose) disorders in:1- **Extrinsic coagulation pathway (factors)**2- Intrinsic coagulation pathway (factors)11.
- Thrombin time is:1- Extrinsic coagulation pathway (factors)2- Intrinsic coagulation pathway (factors)3- **The conversion of prothrombin to fibrinogen in addition of thrombin**
- Most sever (serious) malaria infection caused by:1- **Plasmodium Falciparum**2- Plasmodium Malaria3- Plasmodium Ovale4- Plasmodium Vivax 5- All of the above13.
- Leukocyte responsible for response to parasitic and allergic infection:1- Lymphocyte2- Nutrophile3- Monocyte4- Basophile5- **Eosinophil**14.
- With Romanowsky stain ,2-5 lobes and give violet or pinkish granules: **Nutrophile,** Eiosinophile, Basophile, Monocyte15.
- Lymphocyte is elevated in :**Viral infectionAcute**, bacterial infection, Iron deficiency anemia, Megaloblastic anemia, Non of the above16.
- Thrombin time measure: **Convert fibrinogen to fibrin with activate of thrombin17**.
- In presence of clotting defect one of this not measure: **Leukocyte count18.**
- Bleeding time test detect the abnormality in : **Defect in vessels and platelets19.**
- S hemoglobin is the same defect of thalassemia but the different is :Long B chain, **Glutamic acid on B chain is substituted with valine,** Glutamic acid on a chain is substitutes with valine20.
- Hormone that cause replication of RBC:**Erythropoietin21.**
- Which of White blood cell give immunoglobulin- **Lymphocyte,**Neutrophil,Basophile,Monocyte,Eosinophil22.
- Neutrophil is a common White blood cell present in blood and the percentage of presence is- 90%,15%,**75%**
- Normal range of erythrocyte- **4, 5- 6,5X 10^9**.
- One of these cell the largest leukocyte cell: Neutrophil,Basophil,**Monocyte**,Lymphocyte, Eosinophil25.
- Malaria chizonts are present in?*reticulo-endothelial *leukocyte***RBCs**.

- Unidirectional movement of WBCs directly to its target is?*sliding*phagocytes***chemo taxis**.
- Malaria does not grow in?*EDTA blood*heparin zed blood***Plasma28.**
- Hemophilia man married to normal woman the incidence of his children is?*carrier male*diseased female***carrier female29.**
- IVY method of bleeding time- **For vascular and platelets abnormalities (function).**
- NeutrophilMost abundant in **WBCs31**.
- HbA(**Adult haemoglobin) for adult, dominant in adult32.**
- HbF**(Infant heamoglobin) fetal haemoglobin33.**
- Neutrophil- **Firstly increased in bacterial infections34.**
- Prolonged application of tourniquet; **Venous stasis- increased calcium level35.**
- Best time for collection of blood for malaria :-A-before and after paroxsymB-**shortly after paroxsym**C-later paroxsymD-just before paroxsym36.
- In folic acid deficiency what happens to rbcs :-A- **Enlarged RBCs (Megaloblastic anemia)** = MacrocyticB- Crenated RBCsC- Haemolyzed RBCs37.
- In iron deficiency anaemia :**RBCs are smaller than normal = Microcytic**
- The malarial sporozoite in man invades:-A-white blood cellsB-**RBCs** C-Reticulo-endothelial cellsD-all of the above
- The defect of thalassemia occurs in:- Cycle of heme, Glubin chain
- All Cells Are Nucleated EXCEPT:-A- LYMPHB- MONOCYTES, **RBC**, NEUTROPHIL
- Romanowsky stain consists of:1- **Eosin + Alkaline methylene blue2**- Eosin only3- Methylene blue only4- Indian Ink.

BIOCHEMISTRY

- One is not correctly paired: α cells→ glucagon, β- cells→ insulin, Parathyroid→ calcium, Corpus luteum→ Progesterone, **Estrogen→ seminiferous tubules.**
- In case of obstructive jaundice one is commonly not found:1- Total bilirubin is elevated2- High bilirubin in urine3**- Direct bilirubin is within the normal**4- Dark color of urine5- Clay color of stool3.
- In case of Hemolytic jaundice one is not likely to be found:1- Total bilirubin is elevated2- **High bilirubin in urine**3- No change in color of urine4- Direct bilirubin is within the normal5- Normal color of stool4.

- One is not true about acid:1- Proton donor2- **Turn litmus paper to blue3**- Sour taste4- React with alkaline to give water and salt5- Non of the above5.
- Pentose phosphate metabolism cycle is important to the cell because it give:1- Acetyl CoA2- ADP3- ATP4- NADH5- **NADPH**6.
- Hydrolysis of sucrose result:1- Only glucose2- Galactose3- **Fructose + glucose4**- Glucose + Glucose5- Maltose + Glucose7.
- Consider ketose:Glucose, **Fructose,** Mannose8.
- Presence one from this substance in urine detect abnormal condition; Calcium,Phosphates,**Glucose**, Urates9.
- In cardiac infraction one of the measurements is not benefited: **Creatinine**.
- One of the following has highest conc. Of cholesterol:Chylomicron, **LDL,** HDL, VLDL, Apolipoprtein11.
- Hyper secretion of insulin cause: **Hypoglycemia12.**
- Hyperglycemia hormone- **Glucagon13.**
- Pyrimidin base: Adenine, Guanine, **Thymine,** Uric acid, Urea14. Cytosine, Uracil
- One use for measure abnormality in kidney : **Creatinine15.**
- Does not stimulate with slight hemolysis: **Cholesterol16.**
- One is stimulate on serum calcium level: **Prolonged application of tourniquet on arm17.**
- Glycolysis done in : Nucleus,Endoplasmic reticulum, **Mitochondrion,** Cytoplasm,Non of the above
- One of the above not present in Diabetic mellitus coma- Hyperglycemia,**Hypercholesterolemia,**High number of ketene in urine,Non of the above19.
-
- In which substance give blood glucose when hydrolysis : Muscle glycogen, **Liver glycogen,** Heart glycogen, Unsaturated faT,Triglyceride20.
- Urea is final product of catabolism of: **Amino acid**, Triglyceride, Cholesterol, polysaccharide21.
- ALP Alkaline phosphates is the important enzyme to detect function in : Liver, Bone**, Liver and bone.**
- One of the following anticoagulant used for blood glucose : EDTA,Heparin,Sodium oxalate, **Florida Oxalate**, Sodium citrate23.
- AST important enzyme to detect abnormality in: Liver disease, Heart disease, **Liver and heart disease.**
- The diabetic patient is going to comma when blood glucose is?*120 mg/dl*160 mg/dl***Less than 50mg/dl25.**
- Amylase value is high in the following disease?*salivary glands*pancreas diseases*All of the previous26.
- One jaundice patient has yellow skin, his billrubin is:*2.5mg/dl*1.2mg/dl*5.0mg/dl27.
- Acute diabetic patient has?*blood sugar more than 150mg/dl*blood sugar more than 180mg/dl***Glucose & Acetone in urine28.**
- Diabetic patient has one of the following symptoms?*acidosis*alkalosis***Dryness29**.
- Insulin is regulating blood sugar by?*Increase the influx of glucose into cells*activate glycogensis***All the previous30.**
- To check the intestinal efficacy the following test is done?*pepsin*lipase***stool fats31**.

- Comma of diabetic patient shows?*glucose grater than 200mg/dl*glucose less than 200mg/dl***glucose grater than 500mg/dl32**.
- Bone matrix can also call?*vascular tissue*fibrous tissue***Osteon**
- Serum LDH is elevated in all the following except?*skeletal disease*cardiac/ hepatic diseases***renal disease34.**
- Elevated Sodium & Chloride is seen in?*shock *diabetic acidosis***Severe dehydration35.**
- Which test is better to diagnose chronic bile duct?*total bilirubin*S-GOT***ALP36.**
- With age the renal threshold for glucose?*increase*decrease***does not change37.**
- Causes of high serum bilirubin are?*overload on liver*haemolysis***all of the previous38**.
- One of the following enzymes is affected by hemolysis?*SGOT*SGPT***LDH.**
- HbA1C of diabetic patient is important for?*he has to come fasting*short term follow up***Long term follow up40.**
- For glucose tolerance test?*collect 5 blood samples only*collect 5 urin samples only***collect 5 blood samples + 5 urin samples41**.
- One of the following heart enzymes is measured after 4-8hr of chest pain?*GOT*LDH***CPK**. Creatine phosphate kinase
- Light effects one of the following?*glucose*urea***billrubin.**
- One of the following is specific diagnostic liver enzyme?*GOT*LDH***GPT**.
- One of the following is important before anesthesia?*alkaline phosphates*acidic phosphates***Pseudocholine esterase45**.
- Acid phosphate is?*heart enzyme*liver enzyme***Prostatic enzyme.**
- In Uric acid estimation?*its affected by carbohydrate meal*no need for fasting***The patient has to come fasting47.**
- All of the following are affected by meal except?*glucose*albumin***Creatininine48**.
- Na+ is the main?*intra cellular anion*intra cellular cation ---- (K)***extra cellular cation49.**
- One of the following electrolytes is affected by hemolisis?*Ca*Mg***k .**
- The best kidney function test?*urea*total protein***creatinine clearance51.**
- For GTT in adults the dose of glucose is?*50gram*100gram***75gram**.
- For GTT in children the dose of glucose is?*30mg*15gram***30gram.**
- Random blood glucose gives an idea?*to justify blood glucose*fasting patient***blood glucose in urgent cases54.**
- Exogenous triglyceride is carried on?*VLDL*HDL***Chylomicron.**
- Endogenous triglyceride is carried on?*LDL*HDL***VLDL56**.
- Harmful cholesterol is carried on?*HDL*VLDL***LDL**
- Useful cholesterol is carried on?*chylomicron*LDL***HDL.**
- For lipid investigation patient has to fast?*4-6hr*6-8hr***12-14hr**.
- Test Used To Diagnose Obstructive Bile DuctA- **Bilirubin**, biliverdin, urobilinogen.
- Which of the following is protected from light :-A-**bilirubin**B-cholesterolC-total protein (TP.)D-bun (blood urea nitrogen)61.
- All of the following can asses the liver function except :-A-AST, ALT, ALP, **Creatinine**
- Purine Associated WithA-ADENINE, GUANINEC, **URIC ACID**, RNA

MICROBIOLOGY

- Bacteria can cause pathogenesis to human by:1-Capsullar2-Secret enzymes3-Endogenous toxins4-Exogenous toxins5-**All of the above2.**
- Function of pili of the bacteria:1- **Attachment to the host tissue2**- Movement3- Reproduction (multiplication)4- Engulf of food5- All of the above3.
- Bacteria motile gram-rods:Shigella, Bordetela pertusis, **Pseudomonas aeruginoea**, Yersenia pestis4. O2 need
- Strict aerobe bacteria- **Mycobacterium** (TB) Grow
- One is always non motile gram –ve rods:1-Haemophilus Influenza2-**Shigella3**- E.coli4-Salmonella5- Borditella Pertusis6.
- One is motile gram –ve rods:1- Haemophilus Influenza2- Bacillus anthracis3**- Pseudomonas aerogenes4- Vibrio cholerae**5- Yersinia Pestis7.
- One is gram +ve oval (cocci):1- Bacillus anthracis2- Meningococci3- **Pneumococci8.**
- A child diagnosis show scarlet fever the cause is:1**- Streptococcus Pyogenes2**- Staphylococci aureus9.
- Xylose lysine Deoxycholate (XLD) is:1- Selective media2- Simple media3**- Differential media4**-Enriched media5- Enrichment10.
- One is not a Romanowsky stain:1- Fields stain2- **Gram stain3**- Geimsa stain 4-Leishman stain11.
- Best sterilization of Nutrient media done by:1- Hot air oven2- **Autoclaving.**
- Org. (bacteria) arranged in Chinese litters:1- **Corynebacteria Diphtheria**2- Bacillus anthraces13.
- Confirmatory test of streptococcus pneumonia:1- Catalase2- **Optochine disc3**- Coagulase4- Bile insolubility5- Bacitracin14.
- Gram +ve cocci arranged in groups (clusters):1- Streptococci2- **Staphylococci**.
- One is always oxidase +ve1- Haemophilus Influenza2- **Pseudomonas aurogenase16.**
- Gram-v bacteria color :Dark purple, **Pale to dark red**, Orange
- Bacteria need dark field to detect- **T.pallidium (Syphilis)18.**
- Citrate test assis :MycobacteriasStaphStreptColistridia sp19.
- Nutrient agar:**Basic media20.**
- Disease caused by Pyogen stereptococcus: **Scarlet fever.**
- Org cause bloody in stool: **Shigella sp.**.
- Z.N stain use for diagnose :**Mycobacterium23.**
- Media use for differentiate between L.F and N.L.F: **Maconky media24.**
- Use for clean slide: Ethyl alcohol, **Methyl alcohol**.
- The following is ingredient of culture medium: Meat extract, Minral salts, Agar, Peptone, Non of the above, **All of the above26.**
- The most source of ATP in cell is : **Mitochondria,** Cytoplasm, Nucleus, Cell wall27.
- H Ag present in : Pilli, Capsule, **Flagella,** Cell membrane28.
- Selective and Differential medium of entero pathogen is: Chocolate agar, Blood agar, **DCA medium**, Meat extract agar, Non of the above29.

- One of these is prokaryotic cell: Fungi, **Bacteria,** Entameba histolytica, All of the aboveNon of the above30.

One of these org gram +ve cocci arranged in pairs : Staphylococci, Streptococci, Meningococci, **Entrococci**

- Substance used in catalyse reaction : $\mathbf{H_2O_2}$
- The best sample for the culture of children paralysis virus is?*anal swab*blood culture***stool culture33.**
- All of the following is true for salmonella except?*motile*produces H2S***oxidase positive34**.
- The best media for urine culture is?*blood agar*chocolate agar***CLED agar35**.
- The sterilization of autoclave is?*85c for 30min*150c for 30min***121c for 15min.** PSI pressure
- Shigella soni colored in maconkey & EMB?*colorless***red*pink .**
- All the following bacteria are interobacter except?*E.coli*proteus***Non of the previous3.**
- All the following parameters affecting gram staining except?*use H2SO4*add absolute alcohol after washing***Delaying the dryness of the slide39.**
- Blood sample is used to diagnose?*C.tetani*C.diphteria***non from them**.
- Serious that causes food poisoning?*staph albus*salmonella typhi***Salmonella enteritidis.**
- Which of the following causes UTI & INDOL positive?*klebsiella*staphylococci***E.coli.**
- One of the following is capsulated bacteria?*streptococci*E.coli***klebsiella Pneumonia43.**
- Which of the following culture media is suitable for semi quantitative bacterial count in urine samples: Mc Conkey agar, Blood agar, XLD medium, Mannitol salt agare- **CLED medium44.**
- The following organisms are lactose fomenters excepta- E. coli, Enterobacter cloacaec- Shigella sonneid, **Proteus spp.**45.
- All is true about Enterobacteriaceae except :-a-They are ...... hemolytic and sorbitol, Ferments Mannitolc- Grow in Methylene blue mediumd- **Inhibited growth with 6.5 % NaCl and/or at temperature46.**
- All are true of campylobacter jejuni or Which of the following statements about campylobacter is false:-a-Gram negative curved bacilli, Slow growth, **Grow on XLD medium**, Arranged in pairs
- Beta hemolysis is enhanced when group B Streptococci is streaked at an angle in blood agar plate with : Streptococcib-**Staph aureusc**-Micrococcusd-Streptococcus epiedermidise-Corynebacterim diphteriae48.
- All statements are true about proteus mirabilis and Proteus vulgaris except -Oxidase negative & liquefies gelatin: Exhibits swarming on BAP and Mc Conkey's agarb-Urease positivec-KCN and N2S positived- **Positive to INDOLE test49**.
- Klebsiella pneumonia- **Capsulated50**.
- Some organisms are to said to be pathogenic if they are containing the following features :-A-**coagulaseB**-catalaseC-sugarD-antibodies51.
- Sterilization is best done by- **121c 15 PSI for 15-20 minutes**.
- Organism Soluble In Bile :-A- staphB-streptococciC- **Pneumococci (streptococcus pneumonia)**D- Haemophilous influenzae53.

- Thayer-martin media is the choice for the isolation of the following organism : Pseudomonas AeroginosaB- Haemophilus influenzaeC- **Nisseria gonorrhoea**
- Confirmatory test for Strept. Pneumoniae : **Optochin sensitivity disc**B- Bacitracin disc sensitivityC- Bile solubilityD- Catalase test55.
- Specimen suitable for microfilaria- TISSUE, **BLOOD**, FLUID56.
- Which of the following organisms is an anaerobic bacterium :-A- **Clostiridium spp.**B- HaemophilusC- E. ColiD- Yersinia enterocolitica
- Nutrient agar is :-A- Selective mediaB-Differential mediaC-Special mediaD- **Basic medium58**.
- The Following Organisms Are Encapsulated Except :-A- Pseudomonas aeroginosaB- E. ColiC- Haemophilous influenzaeD- ***Streptococcus pneumoniae***
- Vi Ag is seen in :-A- **CAPSULE**, PILIC-SPORED-FLAGELLA60.
- All are true about enterococci except :- (Strept. Faecalis)A-have carbohydrate antigen of group d streptococci, positive aesculin hydrolysisC-grow in the presence of bile saltsD- **Do not grow in the presence of 6.5 % Nacl nor at 45 c**
- Significant bacteruria , puria , and alkaline urine probably indicate urinary tract infection due to: Staphylococcus epidermidis- E. Coli- **Proteus vulgaris-** Pseudomonas aerginosa-Enterococcus Faecalis62.
- Streptococci responsible for the majority of human infections are :-**Group A,** beta-haemolytic streptococci, bacitracin-s and camp (-), all of theseE-none of these
- To differentiate between nisseria gonorrhoea and nisseria meningitidis :A-fermentation of dextrose and lactoseB- Fermentation of dextrose and maltoseC-fermentation of maltose and lactose**, Fermentation of maltose and sucrose.**
- Blood culture is indicated in the following bacterial diseases except- meningitisB-endocarditisC-**Gastroenteritis**D-pyelonephritisE-pneumonia65.
- Which of the following statements about campylobacter jejuni is falseA-gram negative curved bacilliB- Arranged in pairs (see-gull)C-slow growthD-**Grows on XLD mediumE**-incubation temperature at 42 c66.
- The invasiveness of streptococcus pneumoniae is due to the production of:A-haemolsinsB-endotoxinsC-extotoxinsD- **Polysaccharide capsule**
- Agar is characterized by all the following except?*freezing point is 42c & melting point is 100c***nutritive***un-nutritive

Glucose ↓ - after standing / w/o centrifugation

IVF GTT - for poor Glucose Absorption / Variation of Glucose Absorption.

Creatinine Clearance = Urine sample is 12 hrs.

Ca ↓ = EDTA

Statistical SD = CL - mean = 100 ((99, 100, 101, 102) / 98, 97, 95, 96 / 105, 106, 107, 108)

Product of amino acid catabolism = Urea

HbA = major in adult.

Protime = II, III, X, VII

Folic Acid Anemia = Macrocytic, megaloblastic anemia

Poikilocytosis = shape of RBC

Hemolytic Anemia - ↑ redcell destruction

Eosinophil = parasite & allergic reaction

Clotting Factor more on tissue = ?

F.P.T.C. L.S.A.C. SP HF

Bacteroides = g⊖ coccobacilli

best for culture = midstream urine

culture media for TB = Lowenstein - Jensen Agar

Streptococci ⊖ & micrococci (staphylococci) ⊕ = Catalase

best antibiotic for streptococci = penicillin

Microscope used for Gram staining = Bright, Darkfield, Flourescent, Electron.

Log phase = increased growth rate of bacteria

Gonorrhea / Gonococcal infection - genital, skin, blood, nasal